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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,661	12/14/2001	Man Hay Pong	9661-0024-999	9580

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EXAMINER	
A, MINH D	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,661	PONG ET AL.	
	Examiner	Art Unit	
	Minh D A	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-3 are rejected under 35 U.S.C. 102(b) as being unpatentable by Saito et al (Us 2002/0158590A1).

Regarding claim 1, Saito discloses a power supply unit comprising: an inductor (315) coupled in series with a first light emitting diode (106); a second light emitting diode (317) coupled in parallel to the inductor (315) and the first light emitting diode (106) such that the second light emitting diode (317) is reverse biased when a power source (306) drives a current through the inductor (315) and the first light emitting diode (106) and a switch controlling (316) the connection of the inductor (315) and the first light emitting diode (106) to the power source (306). See figures 3-4, col.4, lines {0073} to col.5, line {0088}.

3. Claim 4-10 are rejected under 35 U.S.C. 102(b) as being unpatentable by Chang et al (US 6,369,525).

Regarding claim 4, Chen discloses an apparatus to provide power to drive a plurality of light emitting diodes (210, 220, 230) comprising: an inductor (225) coupled in series with a first light emitting diode (227), a switch (229) controlling a connection of the inductor (225) and the first light emitting diode (227) to a power source; and a first

terminal and a second terminal of me power source connected in series to the inductor via the switch and at least one second light emitting diode (220), the at least one second light emitting diode having a forward voltage higher than input voltage across the first and second terminals, wherein the second light emitting diode (220) is connected in parallel to the switch and the first light emitting diode(227), wherein furthermore' the second light emitting diode (220) is coupled in series with the inductor (225) and the power source. See figures 3-5, col.4, lines 55-67 to col.6, lines 1-30.

Regarding claim 5, Chen discloses a third light emitting diode coupled in parallel to the first and second terminals. See figures 3-5.

Regarding claim 6, Chen discloses a third light emitting diode coupled in series with the first or second terminals. See figures 3-5.

Regarding claim 7, Chen discloses an apparatus to provide power to drive a plurality of light emitting diodes comprising: a switching forward power ((206) connected with a transformer; a secondary winding coupled the transformer having at least two terminals; a first light emitting diode (217) having a first end and a second end the first end of the first light emitting diode (217) coupled to a first terminal of the secondary winding and the second end of the first light emitting diode (217) coupled to a first end of an inductor(215) and a first end of a second light emitting diodes (210, 213 and 217) wherein furthermore, a second end of the second light emitting diode (210) being coupled to a second terminal of the secondary winding; and a third light emitting diode (213) coupled in parallel with the series combination of the second light emitting diode (210) and the inductor(215). See figures 3-5, col.4, lines 55-67 to col.6, lines 1-30.

Regarding claims 8-9, Chen discloses an apparatus to provide power to drive a plurality of light emitting diodes comprising: a switching fly-back power converter with a transformer one or more secondary windings coupled to the transformer and one or more light emitting diodes coupled to each of the secondary windings such that power delivered by which is substantially consumed by said-light emitting diodes. See figures 3-5, col.4, lines 55-67 to col.6, lines 1-30.

Regarding claim 10, Chen discloses a plurality diodes comprising'. a switching bridge power converter with a transformer', a plurality of secondary windings including at least a first secondary winding and a second secondary winding coupled to the transformer such that a first terminal of the first secondary winding has the opposite polarity to that of a first terminal of the second secondary winding', a first and a second light emitting diode coupled together at their cathodes, wherein furthermore, an anode of the first light emitting diode being connected to the first terminal of the first secondary winding and an anode of the second light emitting diode being connected to the first terminal of the second secondary winding; and an inductor coupled to the cathodes of the first and the second light emitting diodes, the inductor further coupled to a second terminal of the first secondary winding and a second terminal of the second secondary winding via a third light emitting diode. See figures 3-5, col.4, lines 55-67 to col.6, lines 1-30.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (US 2002/0158590A1) in view of Raddi et al (US 2001/0012209A1).

Regarding claims 2-3, Saito discloses the third light emitting diode. However, Saito does not teach that, a third light emitting diode coupled in series to the first light emitting diode to a first terminal and a second terminal of the power source.

Raddi discloses a third light emitting diode coupled in series to the first light emitting diode to a first terminal and a second terminal of the power source. See figures 4a-5b, col.3, lines [0021] to col.3, lines [0024].

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ a third light emitting diode coupled in series to the first light emitting diode to a first terminal and a second terminal of the power source such as that suggested by Raddi in the lighting circuit in order to directly coupled to an alternating current power supply, because it provides a power supply and LED lamp device which high in efficiency and low in loss.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Atchinson et al (US 6,371,637) and Allen (US 6,072,280) are cited to show a LED light.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834). The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

WILSON LEE
PRIMARY EXAMINER

Examiner

Minh A

Art unit 2821

9/15/05